

REMARKS/ARGUMENTS

Claims 1-15 were previously pending in the application. New claims 16-17 are added herein. Assuming the entry of this amendment, claims 1-17 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

In paragraph 3 of the office action, the Examiner rejected claims 1-2, 4, 7-8, 10, and 12 under 35 U.S.C. 102(e) as being anticipated by Salman. In paragraph 4, the Examiner objected to claims 3, 5-6, 9, 11, and 13-15 as being dependent upon a rejected base claim, but indicated that those claims would be allowable if rewritten in independent form. For the following reasons, the Applicant submits that all of the pending claims are allowable over Sahlman.

Claims 1 and 7

According to original claim 1, a first copy of an input signal is amplified by a first amplifier sub-system, and one or more other copies of the input signal are amplified by one or more other amplifier sub-systems, where the outputs from the first amplifier sub-system and the one or more other amplifier sub-systems are combined to generate a combined amplified output signal.

In rejecting claim 1, the Examiner cited Fig. 2 of Sahlman, suggesting that main power amplifier (MPA) 205 is an example of the first amplifier sub-system of claim 1 and that EPA 210 is an example of the one or more other amplifier sub-systems of claim 1. The Applicant respectfully submits that this constitutes a mischaracterization of the teachings in Sahlman and that, as a result, the rejection of claim 1 as being anticipated by Sahlman is improper.

Sahlman's Fig. 2 shows a conventional amplifier linearization circuit that combines digital predistortion with feed-forward (FF) distortion compensation. See, e.g., column 4, lines 64-65. In particular, digital predistorter 202 applies predistortion to the digital baseband (BB) input signal, while digital FF correction module 203 is part of the FF distortion compensation processing. See column 2, line 65, to column 3, line 1. As described in column 3, lines 8-12, digital FF correction module 203 produces an error signal that is fed to a second DAC and up-converter 209 that drives EPA 210. As described in the context EPA 108 of Fig. 1, EPA 210 is an error power amplifier that amplifies an error signal corresponding to the difference between a portion of the input signal and a level-adjusted version of the output of MPA 205. See column 1, lines 50-63, and comparator 106 of Fig. 1. The resulting amplified error signal is then subtracted from the output of MPA 205 at coupler 211. See column 3, lines 12-15.

Thus, while MPA 205 may be said to be an example of the first amplifier sub-system of claim 1, it is not true that EPA 210 is an example of the one or more other amplifier sub-systems of claim 1. Claim 1 explicitly recites that the one or more other amplifier sub-systems amplify one or more other copies of the input signal. Sahlman's EPA 210 does not amplify a copy of the input signal; Sahlman's EPA 210 amplifies an error signal that is not a copy of the input signal. While it is true that Sahlman's error signal is derived from the input signal, it is simply not a copy of that input signal.

In view of the foregoing, the Applicant submits that the Examiner mischaracterized the teachings in Sahlman by concluding that Sahlman's EPA 210 is an example of the one or more other amplifier sub-systems of claim 1. As such, the Applicant submits that the rejection of claim 1 as being anticipated by Sahlman is improper.

For all these reasons, the Applicant submits that claim 1 is allowable over Sahlman. For similar reasons, the Applicant submits that claim 7 is allowable over Sahlman. Since the rest of the claims depend variously from claims 1 and 7, it is further submitted that those claims are also allowable over Sahlman. The Applicant submits therefore that the rejections of claims under Section 102(e) have been overcome.

New Claims 16-17

According to new claims 16-17, the combined amplified output signal is generated by summing the outputs from the first amplifier sub-system and the one or more other amplifier sub-systems. Support for new claims 16-17 is found in Fig. 1, where combiner 108 is depicted using a conventional symbol that implies that the signals from the two amplifiers are summed to generate output signal 130.


According to column 3, lines 12-15, Sahlman's coupler 211 subtracts the signal generated by EPA 210 from the signal generated by MPA 205 (i.e., "combining the error signal with the MPA's output signal in anti-phase through a coupler 211" (emphasis added)).

The Applicant submits that this provides additional reasons for the allowability of claims 16-17 over Sahlman.

In view of the above amendments and remarks, the Applicant believes that the now-pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

Respectfully submitted,

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